

REMARKS

Prior to entry of the present Amendment, claims 1-21 were pending in this application. The status of the pending claims is as follows.

- Claims 19-21 are allowed;
- Claims 1, 5, 6, 9-12, and 15-18 are rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent Application Publication No. 2002/0168864 by Cheng *et al.* (“Cheng”); and
- Claims 2-4, 7, 8, 13, and 14 are objected to as being dependent from a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

The undersigned attorney wishes to thank Examiner Lee for his time and courtesy extended during the telephonic interview with the undersigned attorney’s colleague, Brian R. Chase, Esq., that took place on March 17, 2005, and for helpful suggestions related to claim changes in order to advance this application towards allowance. The following remarks are intended to constitute a proper recordation of such interview in accordance with MPEP §713.04, and also to provide a full response to the Office Action.

The discussion focused on independent claim 1, during which the Applicants’ representative noted that the terms “grading rate” and “gradient” were used in the specification interchangeably and have the same meaning. Following the discussion, Examiner Lee agreed that substituting, for clarification purposes, “grading rate” for “gradient” in claims 1, 5, 6, 12, 15, and 16 overcomes the outstanding rejection based on the prior art currently of record. It was noted that Cheng reports on a compositionally graded $\text{Si}_{1-x}\text{Ge}_x$ buffer layer where the Ge composition x increases gradually from zero to 25% with a grading rate of 10% Ge/ μm , and does not teach or suggest employing the claimed grading rate to arrive at “a final composition having a germanium content ranging from greater than 0% to 100% and a threading dislocation density not exceeding about $10^7/\text{cm}^2$,” as recited in Applicants’ independent claims. Applicants hereby amend claims 1, 5, 6, 12, 15, and 16, as well as, for the sake of consistency, claims 19-21, as suggested by the Examiner. No new matter has been introduced.

CONCLUSION

Applicants respectfully submit that all pending claims are now in condition for allowance and respectfully request that the application proceed to issue. The Examiner is invited to contact Applicants' undersigned representative by telephone at the number listed below to discuss any outstanding issues.

Respectfully submitted,

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